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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/725,526

12/03/2003

Raymond K. Orr

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7590 05/23/2008  
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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

05/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/725,526	<b>Applicant(s)</b> ORR ET AL.	
	<b>Examiner</b> MICHAEL RUTLAND WALLIS	<b>Art Unit</b> 2836	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-16 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-16 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/18/08 has been entered.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 9, 15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Freige et al. (U.S. Pat. No. 4,538,073)

With respect to claims 1, 9 and 15 Freige teaches a distributed power supply arrangement (see Fig. 4) comprising a plurality of power sources (items 10a-10n) for supplying power to a plurality of loads (monitor processor and floppy shown in Fig. 1) via a power distribution network, the power sources and the loads being connected to the power distribution network whereby the power sources are coupled to the loads via respective resistances (resistors and conductive connections shown in Fig. 2) of the power distribution network, the arrangement further comprising at least one voltage sensor (see col. 6 lines 50-60) for sensing power supply voltage at least one point in the power distribution network, wherein each of the power sources is responsive (see conduction control of transistor Q4 by voltage regulating circuitry) to the sensed power supply voltage for supplying a regulated current (see col. 6 lines 34-50) or a regulated power (col. 7 lines 5-6) to the power distribution network.

With respect to claim 2 and 19 Freige teaches a plurality of said voltage sensors (sensor circuitry associated with each supply item 10a-10n) for sensing power supply voltages at a plurality of points in the power distribution network.

With respect to claims 4 and 16 Freige teaches the power supply outputs a regulated current.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hart (U.S. Pat. No. 3,909,702)

With respect to claims 3 and 10 Freige teaches each of the power sources is responsive sensed power supply voltages for supplying said regulated current or regulated power to the power distribution network. Hart teaches (see abstract, further see col. 5 lines 15-20) regulation circuitry wherein each of the power sources is responsive to an average of the sensed power supply voltages for supplying said regulated current or regulated power to the power distribution network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Freige to sense the average current in order provide a stable output power to the loads average power requirements.

Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hayward et al. (U.S. Pat. No. 6,317,345)

With respect to claims 6 and 13-14 Freige teaches the device of claim 1 and 2 but does not teach the power distribution network comprises power and ground planes of a circuit card on which the loads are provided. Hayward teaches plural power circuits and ground plane circuitry. It would have been obvious to one of ordinary skill in that art

at the time of the invention modify Freige to implement the system on claim 1 on a circuit card in order to use the system in a backplane arrangement.

With respect to claims 7 Hayward teaches the plurality of power circuits are arranged on the circuit card.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in further view of Johnston (U.S. Pat. No. 5,952,733) Freige teaches the power sources are arranged for supplying regulated currents with a rating scheme (col. 9 lines 25-40) rating the power requirements. Freige does not teach each source is arranged with a current of different relative weights to the power distribution network. Johnston teaches the power sources are arranged for supplying regulated outputs (see 1.5v 3.3v, 5v and 12v outputs) with different relative weights to the power distribution network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Freige to output different currents with different weights in order to increase the efficiency of the secondary converters

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freige et al. (U.S. Pat. No. 4,538,073) in view of Hart (U.S. Pat. No. 3,909,702) in further view of Johnston (U.S. Pat. No. 5,952,733) Freige teaches the power sources are arranged for supplying regulated currents with a rating scheme (col. 9 lines 25-40) rating the power requirements. Neither Freige nor Hart teach each source is arranged with a current of different relative weights to the power distribution network. Johnston teaches the power sources are arranged for supplying regulated outputs (see 1.5v 3.3v, 5v and 12v outputs) with different relative weights to the power distribution network. It would have

been obvious to one of ordinary skill in the art at the time of the invention to further modify Freige to output different currents with different weights in order to increase the efficiency of the secondary converters.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael J Sherry/  
Supervisory Patent Examiner, Art Unit 2836

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